



NORTHERN HARDWOOD NOTES

Even-age Versus All-age Management

You've got a northern hardwood forest to manage. Which way should you go—the even-age or the all-age method?

From the timber standpoint, the choice should be based mainly on the species you want and the product needed in the future. (If you're considering wildlife habitat needs, esthetics, or soil and water protection, the basis for choosing may be different.) You can change management methods any time. You'll merely prolong the time required to get the right stand structure and species composition.

Different species mixtures have different silvicultural requirements, so identifying each type in a stand is the first step in choosing a management method. Only heavy-seeded species (such as sugar maple and white ash) can be perpetuated by either management method. The light- or small-seeded species can only be regenerated and developed by using the even-age method.

The following tabulation gives some selected differences between even- and all-age management. The characteristics for the all-age method assume a regulated stand.

Even-age Method	All-age Method (regulated stand)
1. Requires a different basal area stocking for every thinning depending on average tree diameter and species composition.	Basal area stocking remains constant for every thinning.
2. Removes many small trees in each thinning.	Removes fewer trees and larger trees at each thinning.
3. Early thinnings are all pulpwood and economically marginal.	Thinnings are mainly saw logs with a small amount of pulpwood.
4. A half to two-thirds of periodic growth can be sold while stocking is building up.	Nearly all the volume growth at each thinning can be sold once the stand is regulated.
5. Merchantable height will usually be less than two 16-foot logs in sugar maple.	Merchantable height can be three 16-foot logs or more due to forking correction.

Even-age Method	All-age Method (regulated stand)
6. Butt rot, resulting from winter sunscald of 1- to 3-inch diameter saplings on exposed sites, can reduce volume and grade in sugar maple and other species.	Sunscald rarely occurs.
7. Provides opportunity for light-or small-seeded hardwood species when combined with seedbed preparation.	Favors shade-tolerant species-especially sugar maple.
8. Provides excellent habitat for wildlife during the first 10 to 15 years of stand development.	Low browse production (See Note 8.02)
9. Ideal for production of fiber.	Produces high-quality logs.

Don't forget to consider other differences between the methods-differences that you are already aware of in road construction and maintenance costs, type of property taxation, persistence of wildlife habitats, esthetic values, the best logging equipment to use, and incidence and control of insects and diseases. Some of these will influence your choice but it will mainly be based on the species you have and the products you want.

Richard M. Godman